Abstract

A method, an arrangement and a computer program product, for providing seamless IP mobility across a security boundary between two domains is described. The invention comprises a novel architecture of known network infrastructure components along with enabling client software on the user device. The specific client software as well as the novel architecture represents the invention. Unlike state-of-art today, the method is based on the combined use of independent IP mobility systems in each of the two domains. The key to the invention is client software being able to operate with both mobility systems simultaneously. Moreover, communication takes place in such a way that the ordinary remote access security solution is in control of all access to the secure home domain of the user. The resulting method provides secure and seamless IP mobility in any domain with independent choice of mobility and security technologies. The invention does not require any significant changes (adaptations nor extensions) to any IP mobility or security technology beyond existing or upcoming standards. Nor does it require any significant changes to existing infrastructure components. The mobility client software is the only component that is affected, thus making the method client-centric, as opposed to a network-centric approach that is otherwise the alternative. The invention applies both for the current IPv4 family of standards as well as the forthcoming IPv6 family of standards. The invention applies in particular for the Mobile IP and IPSec VPN standards but is not restricted to these technologies. The invention is applicable for any IP mobility and IP security protocols as long as they are based on the same set of underlying principles.

Fig. 7